

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1 - 21 are currently pending in this application. Claims 1, 3, 6, and 16 have been amended. Applicants submit that no new matter has been introduced into the application by these amendments.

Allowable Subject Matter

The Examiner is thanked for indicating that claims 6, 16 and 17 contain allowable subject matter. Claims 6 and 16 have been rewritten in independent form to include all limitations of any intervening claim. Claim 17 depends from claim 16. Accordingly, claims 6, 16 and 17 should now be allowed.

Claim Rejections - 35 USC §102

Claims 1 - 5, 7, 8 - 15 and 18 - 21 were rejected in the Action under 35 U.S.C. § 102(b) as anticipated by German Patent No. DE 11 54 982B. Applicants respectfully traverse this rejection.

The invention as currently claimed in independent claim 1 is an insertion part which can be used in a gas line or a liquid line. The insertion part includes a housing, and a displaceable sealing body arranged in an interior of the housing which can seal a flow opening of a feeder channel in a closed position. The insertion

part is provided with an annular lip shaped part having an annular body held inside the housing, and which in an area of at least one flow opening has at least one control lip as a control body and at least one sealing lip as the sealing body that can be displaced by the fluid. A free lip end region of the sealing lip contacts an opposing housing surface in a sealing manner in the closed position. A regulating profile is provided in the housing surface adjacent to the free lip end, and a control gap is defined between the control lip and adjacent housing surface. The dimension of control gap is variable dependent on flow pressure.

The invention as currently claimed in independent claim 3 is an insertion part which can be inserted into a gas line or a liquid line. The insertion part includes a housing, and at least one throttle body or control body arranged in an interior of the housing. The control body limits a control gap, depending on a flow pressure, between itself and an adjacent housing wall. The insertion part is provided with an annular lip shaped part having an annular body held inside the housing, and has at least one control lip as the throttle body or control body. The insertion part is aligned with a free lip end region extending in a direction of an adjacent housing wall. A regulating profile is provided in the housing wall adjacent to the free lip end, which comprises grooves or moldings aligned in a flow direction. The control gap is defined between the control lip and adjacent housing wall.

In contrast, DE 11 54 982B discloses a one-way valve that does not provide any through-flow regulation as in the present invention. DE 11 54 982B does not show an annular lip shaped part (3) having an annular body (6) held inside the housing, and which in an area of at least one flow opening has at least one control lip (9) as a control body and at least one sealing lip (14) as a sealing body, as is claimed. Further, there is no way for the valve described in DE 11 54 982B to limit the amount of through fluid flow per unit time as in the present invention. The valve of DE 11 54 982B is in its closed position only in the event of a back flow. The insert of the present invention provides a housing wall having a regulating profile, which is arranged in a flow direction. The lip-shaped part works together with the regulating profile of the housing wall defining a control gap whose dimensions vary depending on pressure. Thus, movement of the free lip end towards the housing wall will keep the flow volume at a constant value. The lip-shaped part of DE 1 154 982 is not a throttle or control body as claimed.

The valve lip 5 of DE 11 54 982B moves towards the housing 7 when in the open position. Therefore, the valve is incapable of adjusting the volume to a maximum value that can flow through the water line per time unit independent from the pressure. The valve lip 5 is sealed when no fluid passes through, i.e. when it is closed as shown in the left side of Fig. 3 above, and the opening size (and hence flow volume) increases with pressure. In contrast, in the insert of the present

invention, the lip gap is narrowed under increasing pressure of the medium flowing through, thereby acting as a flow rate regulator, so that, despite constantly rising pressure, a continuous flow volume per unit time is achieved.

Despite the increase in pressure, the flow amount remains constant as a result of the lip gap being reduced under increasing pressure of the medium flowing through, thereby acting as a flow rate regulator. Thus, DE 11 54 982B does not show all of the claimed elements of the independent claims and operates in a completely opposite way from the present invention.

Based on the differences noted above, withdrawal of the § 102 rejection of claim 1 is respectfully requested.

Claims 2 - 5, 7 - 15, and 18 - 20 depend directly or indirectly from claims 1 or 3 and should be similarly patentable.

Applicant: Hart et al.
Application No.: 10/549,245

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 21, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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